

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

### **Listing of Claims:**

1. (Currently Amended) A mobile node ~~part~~ of a radio communication system having a network part and the mobile node ~~part~~, the network part having a network-copy of a database containing database records and database values of the database data and the mobile node ~~part~~ having a mobile-copy of the database containing database records and database values of the database data, the database records and database values of the database data of the network-copy and the mobile-copy of the ~~first~~ database, respectively, correspond to each other when the network-copy and the mobile-copy of the ~~first~~ database are in match with one another, said mobile node comprising:

processing circuitry (~~circuitry~~) coupled to the said mobile-copy database, said processing circuitry configured to:

i) generate a first hash pursuant to a first hash technique of a first computational intensity and based upon the database values of the mobile-copy database, and communicate said first hash to the network part on a communications channel of the radio communication system, whereby an out of match condition between the mobile-copy database values and the network-copy database values may be determined,

ii) ~~and~~ generate, upon a determination of an out of match condition between mobile-copy database values and network-copy database values, a second hash pursuant to a second hash technique of a second computational intensity and based upon the database records in the mobile-copy database, and communicate said second hash to the network part on said communications channel, in which said second computational intensity is greater than said first computational intensity and requires a greater amount of communication channel capacity to communicate said second hash than said first hash,

whereby an out of match condition between a record of the mobile-copy database records and a corresponding record of the network-copy database records may be determined, hashes,  
~~which are computed using first and second different types of hash techniques respectively, the first hash being formed over at least a first part of the mobile-copy database using the first technique to determine whether the first part of the mobile-copy database is out of match with a corresponding first part of the network-copy database, the second hash being formed by the circuitry over a sub-part of the first part of the mobile-copy database using the second technique upon a determination that the first part of the mobile-copy database and the first part of the network-copy database are out of match; and~~

iii) ii) retrieve the out of match database record from the mobile-copy of the database upon a determination of an out of match condition between said mobile-copy database record and said corresponding network-copy database record for communication that the sub-part of the at least a first part of the network-copy and the mobile-copy are out of match, the data retrieved by said circuitry from the mobile-copy database being communicated to the network part, whereby to match the network-copy database records and the mobile-copy database records are matched to each other;

wherein the radio communication system provides bi-directional data communications services to said mobile node ~~part~~, and wherein data is communicated from the mobile node ~~part~~ to the network part by an up-link and, data is communicated from the network part to the mobile node ~~part~~ by a down-link.

2. (Currently Amended) The apparatus of claim 1 wherein said processing circuitry generates said ~~the~~ first hash responsive to an external triggering event, occurrence of which is detectable at the mobile node ~~part~~.

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) The apparatus of claim 1 ~~[[4]]~~ wherein the database records the data maintained at the network-copy database and the mobile-copy ~~of the at least the first~~ database are is comprised of ~~data records, each data record formed of fields including~~ at least a first key field and at least a first record field for each database record, and wherein said second hash comprises a hash of said ~~the second type hashes generated by said circuitry are formed of values of the at least the first key field of each database record.~~

6. (Currently Amended) The apparatus of claim 5 wherein the determination that the network-copy database and the mobile-copy database are out of match is made responsive to ~~said values of the second type hashes formed of the values of the at least the key field~~ second hash.

7. (Currently Amended) The apparatus of claim 5 wherein the out of match database record data retrieved by said processing circuitry comprises both said ~~the at least the first key~~ field and said ~~the at least the first~~ record field.

8. (Currently Amended) The apparatus of claim 1 wherein the processing circuitry is additionally configured to:

iv) ~~iii)~~ receive values of hashes generated by the ~~a~~ network part and determine whether the values of hashes formed at the network part, correspond with locally-generated values at the mobile node ~~part~~; and

v) ~~iv)~~ receive indications of database mismatches, said processing circuitry thereafter requesting additional information associated with the mobile-copy ~~of the at least the first~~ database.

9. (Currently Amended) The apparatus of claim 8 wherein hashes generated by a ~~said~~ network part processing circuitry include a ~~said~~ first hash pursuant to a first hash technique of a first computational intensity and based upon the database values of the network-copy database, type and a ~~said~~ second hash pursuant to a second hash technique of a second computational intensity and based upon the database records in the network-copy database - type.

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) The apparatus of claim ~~8~~ ~~11~~ further comprising circuitry adapted to receive out of match ~~the values of the at least the portions of the data records responsive a comparison of a second hash of said the values with corresponding values of the network-copy of the at least the first database records~~ with a second hash of said mobile-copy database records.

13. (Currently Amended) The apparatus of claim 12 further comprising database ~~value~~ updater circuitry, configured to alter at least one ~~data~~ record of a selected one of the mobile-copy database and the network-copy ~~of the at least the first database.~~

14. (Previously Presented) The apparatus of claim 13 wherein said database value updater circuitry operates pursuant to a selected conflict resolution protocol.

15. (Currently Amended) A method of communicating in a radio communication system having a network part that maintains at least a network-copy of a database containing database records and database values of the database ~~data~~ and a mobile node that maintains a mobile-copy of the database containing database records and database values of the database

~~data~~, the database records and database values of the database ~~data~~ of the network-copy and the mobile-copy of the ~~first~~ database, respectively, correspond when the network-copy database and the mobile-copy ~~of the first~~ database are in match with one another, the said method ~~for~~ altering at least one database record ~~the data~~ of at least one of the network-copy database and the mobile-copy ~~of the at least the~~ database to place the network-copy and the mobile-copy in match with each other, the said method comprising:

generating at the mobile node a first hash pursuant to a first hash technique of a first computational intensity and based upon the database values of the mobile-copy database, ~~value in the mobile node from the mobile-copy of the database~~ when the network-copy database and the mobile-copy database are suspected of being out of synchronization with each other, ~~said first hash value being formed using a first hash technique;~~

sending said ~~the~~ first hash value from the mobile node to the network part on a communications channel of the radio communication system, whereby an out of match condition between ~~the first hash value being representative of the mobile-copy of the database values and the network-copy database values may be determined;~~

receiving, at the mobile node, indication of results of a comparison at the network part, of said ~~the~~ first hash value sent during said operation of sending, to a corresponding network-copy of said ~~the~~ first hash value; and

when if ~~said~~ indication of results of the comparison of said ~~the~~ first hash value generated at the mobile node to a corresponding network-copy of said ~~the~~ first hash value indicates that the mobile-copy database and the network copy database are out of match, thereafter generating a second hash ~~value at in~~ the mobile node pursuant to a second hash technique of a second computational intensity and based upon the database records in the mobile-copy database, in which said second computational intensity is greater than said first computational intensity and requires a greater amount of communication channel capacity to communicate said second hash than said first hash ~~from a portion of the mobile-copy of the database, the second hash value being formed using a second hash technique that is different from the first technique;~~ and

sending said ~~the~~ second hash value from the mobile node to the network part on said communications channel for comparison to a corresponding network-copy of the second hash value , whereby an out of match condition between a record of the mobile-copy database records and a corresponding record of the network-copy database records may be determined;

wherein the radio communication system provides bi-directional data communications services to the said mobile node, and wherein data is communicated from the mobile node to the network part by an up-link and, data is communicated from the network part to the mobile node by a down-link.

16. (Cancelled)

17. (Cancelled)

18. (Currently Amended) The method of claim 15 further comprising the operations of delivering ~~portions of the mobile-copy database records~~ to the network part, comparing said the portions of the mobile-copy delivered records during said operation of delivering with corresponding records portions of the network-copy database records of the at least the first database, and causing overwriting of at least the portions of a selected one of the network-copy database records and the mobile-copy database records responsive to a determination of an out of match condition between a record of the mobile-copy database records and a corresponding record of the network-copy database records ~~comparisons made during said operation of comparing the portions of the mobile-copy.~~

19. (Currently Amended) The method of claim 18 wherein the selected one of the network-copy database records and the mobile-copy database records of which said the portions thereof are caused to be overwritten is selected according to a conflict resolution scheme.

20. (Previously Presented) The method of claim 19 further comprising the operation of creating a change-history by indicating overwriting of the portions selectively caused during said operation of selectively causing.

21. (New) The apparatus of claim 1 wherein said first hash technique comprises a checksum process.

22. (New) The method of claim 15 wherein said generating a first hash further comprises generating a first hash pursuant to a checksum process.

23. (New) A mobile node of a radio communication system having a network part and the mobile node, the network part having a network-copy of a database containing database records and database values of the database and the mobile node having a mobile-copy of the database containing database records and database values of the database, the database records and database values of the database of the network-copy and the mobile-copy of the database, respectively, in correspondence with each other when the network-copy database and the mobile-copy database are in match with one another, said mobile node comprising:

receive circuitry adapted to receive signals transmitted by a network part transmitter;

transmit circuitry adapted to transmit signals to a network part on a communications channel;

a memory element storing at least one mobile-copy database; and

processing circuitry coupled to said receive circuitry, said transmit circuitry, and said memory element, and including:

a request detector,

a hash generator to generate, in response to said request detector detecting an external triggering event, a first hash pursuant to a first hash technique of a first computational intensity and based upon the database values of the mobile-copy database, said first hash being communicated to the network part via said transmit circuitry on said

communications channel, whereby an out of match condition between the mobile-copy database values and the network-copy database values may be determined, and to generate, upon a determination of an out of match condition between mobile-copy database values and network-copy database values being received from the network part via said receive circuitry, a second hash pursuant to a second hash technique of a second computational intensity and based upon the database records in the mobile-copy database, said second hash being communicated to the network part via said transmit circuitry on said communications channel, in which said second computational intensity is greater than said first computational intensity and requires a greater amount of communication channel capacity to communicate said second hash than said first hash, whereby an out of match condition between a record of the mobile-copy database records and a corresponding record of the network-copy database records may be determined, and

a content retriever to retrieve the out of match database record from the mobile-copy database upon reception via said receive circuitry of a determination of an out of match condition between said mobile-copy database record and said corresponding network-copy database record for communication to the network part, whereby the network-copy database records and the mobile-copy database records are matched to each other.

24. (New) The mobile node of claim 23 wherein said first hash technique comprises a checksum process and wherein said second hash comprises a hash of a first key field of said database record.

25. (New) The mobile node of claim 23 wherein said transmit circuitry and said processing circuitry are adapted to deliver mobile-copy database records to the network part, responsive to a determination of an out of match condition between a record of the mobile-copy database records and a corresponding record of the network-copy database records.